

AMENDMENTS TO THE CLAIMS

1. (currently amended) A craniomaxillofacial distraction device comprising:

head mounting means for securing said device to the head of a patient in a fixed manner,
said head mounting means comprising a helmet composed of a rigid material and having
adjustment means for altering the configuration of said helmet, wherein said helmet distributes
compressive forces such that localized pressure points are avoided;

support means for receiving distraction means, said support means being connected to
said head mounting means; and

distraction means for applying distracting forces to treat craniofacial anomalies, said
distraction means being mounted onto said support means.

2. (original) The device of claim 1, wherein said support means comprises a generally
vertically oriented support rod member.

3. (original) The device of claim 2, wherein said support means further comprises an anterior
mounting member secured to said helmet.

4. (original) The device of claim 3, wherein said support means further comprises a mounting
stem extending from said anterior mounting member, said support rod member being connected
to said mounting stem.

5. (original) The device of claim 2, wherein said support means further comprises a crossbar
assembly comprising a generally horizontally disposed crossbar rod member.

6. (original) The device of claim 5, wherein said crossbar assembly is adjustable relative to said support rod member.

7. (original) The device of claim 1, wherein said helmet is composed of a polymer material.

8. (original) The device of claim 1, wherein said helmet is custom fitted to correspond directly to the head of said patient.

9. (original) The device of claim 1, wherein said helmet is open on the top.

10. (canceled)

11. (currently amended) The device of claim 1 ~~[[10]]~~, wherein said adjustment means comprises a generally vertical slit defining ends on said helmet, and closure means for securing said ends.

12. (currently amended) The device of claim 1 ~~[[10]]~~, wherein said adjustment means comprises an internally disposed compressible liner.

13. (currently amended) The device of claim 1 ~~[[10]]~~, wherein said adjustment means comprises inflatable bladders.

14. (currently amended) The device of claim 1 [[10]], wherein said adjustment means comprises internally disposed shaping members.

15. (canceled)

16. (currently amended) ~~The device of claim 1~~ A craniomaxillofacial distraction device comprising:

head mounting means for securing said device to the head of a patient in a fixed manner,
said head mounting means comprising a helmet, wherein said helmet distributes compressive forces such that localized pressure points are avoided;

support means for receiving distraction means, said support means being connected to said head mounting means; and

distraction means for applying distracting forces to treat craniofacial anomalies, said distraction means being mounted onto said support means, wherein said distraction means comprises a pair of distraction assemblies each comprising a threaded distraction screw, a spindle housing to receive said distraction screw, and a bone attachment means.

17. (original) The device of claim 16, wherein said bone attachment means comprises a bone plate.

18. (original) The device of claim 16, wherein said bone attachment means comprises a bone screw.

19. (original) The device of claim 16, wherein said bone attachment means comprises an intraoral wire.

20. (withdrawn) The device of claim 1, wherein said support means comprises a temporal mounting member secured directly to said helmet.

21. (withdrawn) The device of claim 20, wherein said support means further comprises a non-vertically oriented support rod member connected to said temporal mounting member.

22. (withdrawn) The device of claim 21, wherein said support means further comprises temporal orientation means, such that the orientation of said non-vertically oriented support rod member is adjustable relative to said head mounting means.

23. (withdrawn) The device of claim 21, wherein said temporal orientation means comprises a rotating plate member pivotally attached to said temporal mounting member and wherein said non-vertically oriented support rod member is connected to said temporal mounting member through said rotating plate member.

24 [[23]]. (currently amended) The device of claim 2, wherein said support means further comprises multi-directional orientation means, such that the orientation of said vertically oriented support rod member is adjustable relative to said head mounting means.

25 [[24]]. (currently amended) The device of claim 24 [[23]], wherein said multi-directional orientation means comprises a universal joint.

26 [[25]]. (currently amended) A craniomaxillofacial distraction device for treating craniofacial anomalies in the jaw of a patient comprising:

head mounting means for securing said device to the head of the patient in a relatively fixed manner wherein relative motion between said head mounting means ~~helmet~~ and the head of the patient is limited, said head mounting means comprising a helmet composed of a rigid material and having adjustment means for altering the configuration of said helmet, wherein said helmet distributes compressive forces such that localized pressure points are avoided;

support means for receiving distraction means, said support means being connected to said head mounting means;

distraction means for applying distraction forces to the jaw of the patient, said distraction means being mounted onto said support means and comprising at least a pair of distraction assemblies connected to the jaw of said patient.

27 [[26]]. (currently amended) The device of claim 26 [[25]], wherein said support means comprises a generally vertically oriented support rod member and a generally horizontally oriented crossbar rod member.

28 [[27]]. (currently amended) The device of claim 27 [[26]], wherein said support means further comprises an anterior mounting member secured directly to said helmet and a mounting

stem extending from said anterior mounting member, said support rod member being connected to said mounting stem.

29 [[28]]. (currently amended) The device of claim 27 [[26]], wherein said crossbar rod member is adjustable relative to said support rod member.

30 [[29]]. (currently amended) The device of claim 26 [[25]], wherein said helmet is composed of a polymer material.

31 [[30]]. (currently amended) The device of claim 26 [[25]], wherein said helmet is custom fitted to correspond directly to the head of said patient.

32 [[31]]. (currently amended) The device of claim 26 [[25]], wherein said helmet is open on the top.

33 [[32]]. (canceled)

34 [[33]]. (currently amended) The device of claim 26 [[32]], wherein said adjustment means comprises a generally vertical slit defining ends on said helmet, and closure means for securing said ends.

35 [[34]]. (currently amended) The device of claim 26 [[32]], wherein said adjustment means comprises an internally disposed compressible liner.

36 [[35]]. (currently amended) The device of claim 26 [[32]], wherein said adjustment means comprises inflatable bladders.

37 [[36]]. (currently amended) The device of claim 26 [[32]], wherein said adjustment means comprises internally disposed shaping members.

38 [[37]]. (currently amended) ~~The device of claim 25~~ A craniomaxillofacial distraction device for treating craniofacial anomalies in the jaw of a patient comprising:

head mounting means for securing said device to the head of the patient in a relatively fixed manner wherein relative motion between said head mounting means and the head of the patient is limited, said head mounting means comprising a helmet, wherein said helmet distributes compressive forces such that localized pressure points are avoided;

support means for receiving distraction means, said support means being connected to said head mounting means;

distraction means for applying distraction forces to the jaw of the patient, said distraction means being mounted onto said support means and comprising at least a pair of distraction assemblies connected to the jaw of said patient, wherein said distraction means comprises a pair of distraction assemblies each comprising a threaded distraction screw, a spindle housing to receive said distraction screw, and a bone attachment means for connecting said distraction screw to the jaw of the patient.

39 [[38]]. (currently amended) The device of claim 38 [[37]], wherein said bone attachment means comprises a bone plate.

40 [[39]]. (currently amended) The device of claim 38 [[37]], wherein said bone attachment means comprises a bone screw.

41 [[40]]. (currently amended) The device of claim 38 [[37]], wherein said bone attachment means comprises an intraoral wire.

42 [[41]]. (currently amended) The device of claim 27 [[26]], wherein said support means comprises multi-directional orientation means, such that the orientation of said vertically oriented support rod member relative to said head mounting means may be altered.

43 [[42]]. (currently amended) The device of claim 42 [[41]], wherein said multi-directional orientation means comprises a universal joint.

44 [[43]]. (withdrawn) The device of claim 26 [[25]], wherein said support means comprises at least one temporal mounting member secured directly to said helmet.

45 [[44]]. (withdrawn) The device of claim 44 [[43]], wherein said support means further comprises a non-vertically oriented support rod member connected to said at least one temporal mounting member.

46 [[45]]. (withdrawn) The device of claim 45 [[44]], wherein said support means further comprises temporal orientation means, such that the orientation of said non-vertically oriented support rod member is adjustable relative to said head mounting means.

47 [[46]]. (withdrawn) The device of claim 46 [[45]], wherein said temporal orientation means comprises a rotating plate member pivotally attached to said at least one temporal mounting member.

48 [[47]]. (currently amended) A craniomaxillofacial distraction device for treating craniofacial anomalies in the jaw of a patient comprising:

head mounting means for securing said device to the head of the patient in a generally fixed manner wherein relative motion between said head mounting means ~~helmet~~ and the head of the patient is limited, said head mounting means comprising a helmet, wherein said helmet distributes compressive forces such that localized pressure points are avoided, wherein said helmet is composed of a polymer material and comprising adjustment means for altering the configuration of said helmet;

support means for receiving distraction means, said support means being connected to said head mounting means; and

distraction means for applying distraction forces to the jaw of the patient, said distraction means being mounted onto said support means and comprising at least a pair of distraction assemblies connected to the jaw of said patient, said distraction assemblies each comprising a threaded distraction screw, a spindle housing to receive said distraction screw, and a bone attachment means for connecting said distraction screw to the jaw of the patient.

49 [[48]]. (currently amended) The device of claim 48 [[47]], wherein said support means comprises a generally vertically oriented support rod member, a generally horizontally disposed crossbar rod member mounted to said vertically oriented support rod member, an anterior mounting member secured directly to said helmet and a mounting stem extending from said anterior mounting member, said support rod member being connected to said mounting stem, wherein said crossbar rod member is adjustable relative to said support rod member.

50 [[49]]. (currently amended) The device of claim 49 [[48]], wherein said support means further comprises multi-directional orientation means such that the orientation of said vertically oriented support rod member is adjustable relative to said head mounting means.

51 [[50]]. (withdrawn) The device of claim 47, wherein said support means comprises a temporal mounting member secured directly to said helmet and a non-vertically oriented support rod member connected to said temporal mounting member.

52 [[51]]. (withdrawn) The device of claim 50, wherein said support means further comprises temporal orientation means, such that the orientation of said non-vertically oriented support rod member is adjustable relative to said head mounting means.

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